RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _10/501,930 A_
Source: _1Fw/6_
Date Processed by STIC: _12/12/06_

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PATENT APPLICATION:  US/10/501,930A    TIME: 10:34:57

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   4        TSUJIMOTO, MASAFUMI
   5        TSUJI, SHUICHI
   7 <120> TITLE OF INVENTION: GLYCOSYLATING ENZYME
   9 <130> FILE REFERENCE: P25687
  11 <140> CURRENT APPLICATION NUMBER: 10/501,930A
C--> 12 <141> CURRENT FILING DATE: 2005-03-17
  14 <150> PRIOR APPLICATION NUMBER: PCT/JP03/00883
  15 <151> PRIOR FILING DATE: 2003-01-30
  17 <150> PRIOR APPLICATION NUMBER: JP 2002-21159
  18 <151> PRIOR FILING DATE: 2002-01-30
  20 <150> PRIOR APPLICATION NUMBER: JP 2002-122673
  21 <151> PRIOR FILING DATE: 2002-04-24
  23 <160> NUMBER OF SEQ ID NOS: 36
  25 <170> SOFTWARE: PatentIn Ver. 3.3
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  40         35                  40                  45
  42 Ala Ala Leu Lys Thr Leu Trp Ser Pro Thr Thr Pro Val Pro Arg Thr
  43     50                  55                  60
  45 Arg Asn Ser Thr Tyr Leu Asp Glu Lys Thr Thr Gln Ile Thr Glu Lys
  46 65                  70                  75                  80
  48 Cys Lys Asp Leu Gln Tyr Ser Leu Asn Ser Leu Ser Asn Lys Thr Arg
  49             85                  90                  95
  51 Arg Tyr Ser Glu Asp Asp Tyr Leu Gln Thr Ile Thr Asn Ile Gln Arg
  52             100                 105                 110
  54 Cys Pro Trp Asn Arg Gln Ala Glu Glu Tyr Asp Asn Phe Arg Ala Lys
  55             115                 120                 125
  57 Leu Ala Ser Cys Cys Asp Ala Ile Gln Asp Phe Val Val Ser Gln Asn
  58     130                 135                 140
  60 Asn Thr Pro Val Gly Thr Asn Met Ser Tyr Glu Val Glu Ser Lys Lys
  61 145                 150                 155                 160
  63 His Ile Pro Ile Arg Glu Asn Ile Phe His Met Phe Pro Val Ser Gln
  64             165                 170                 175
  66 Pro Phe Val Asp Tyr Pro Tyr Asn Gln Cys Ala Val Val Gly Asn Gly
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73       210                215                220
75 Asp Val Gly Ser Lys Thr Asn Leu Val Thr Val Asn Pro Ser Ile Ile
76 225                230                235                240
78 Thr Leu Lys Tyr Gln Asn Leu Lys Glu Lys Lys Ala Gln Phe Leu Glu
79              245                250                255
81 Asp Ile Ser Thr Tyr Gly Asp Ala Phe Leu Leu Leu Pro Ala Phe Ser
82              260                265                270
84 Tyr Arg Ala Asn Thr Gly Ile Ser Phe Lys Val Tyr Gln Thr Leu Lys
85       275                280                285
87 Glu Ser Lys Met Arg Gln Lys Val Leu Phe Phe His Pro Arg Tyr Leu
88       290                295                300
90 Arg His Leu Ala Leu Phe Trp Arg Thr Lys Gly Val Thr Ala Tyr Arg
91 305              310                315                320
93 Leu Ser Thr Gly Leu Met Ile Ala Ser Val Ala Val Glu Leu Cys Glu
94              325                330                335
96 Asn Val Lys Leu Tyr Gly Phe Trp Pro Phe Ser Lys Thr Ile Glu Asp
97       340                345                350
99 Thr Pro Leu Ser His His Tyr Tyr Asp Asn Met Leu Pro Lys His Gly
100            355                360                365
102 Phe His Gln Met Pro Lys Glu Tyr Ser Gln Met Leu Gln Leu His Met
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122                 Met Arg Ser Gly Gly Thr Leu Phe Ala Leu Ile Gly
123                  1               5               10
125 agc ctg atg ctg ctg ctc ctc ctg cgt atg ctc tgg tgc cca gcc gac      160
126 Ser Leu Met Leu Leu Leu Leu Leu Arg Met Leu Trp Cys Pro Ala Asp
127        15                20                25
129 gcg cct gcc cgc tcc agg ctg ttg atg gag gga agc aga gag gac acc      208
130 Ala Pro Ala Arg Ser Arg Leu Leu Met Glu Gly Ser Arg Glu Asp Thr
131       30                35                40
133 agt ggt acc tca gct gca ctg aag aca ctc tgg agc ccg aca acc ccg      256
134 Ser Gly Thr Ser Ala Ala Leu Lys Thr Leu Trp Ser Pro Thr Thr Pro
135 45                50                55                60
137 gta cca cgc acc agg aac agc aca tat ctg gat gag aag aca acc caa      304
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139              65                  70                  75
141 ata aca gag aaa tgc aaa gat ctg caa tat agc ttg aac tct tta tct   352
142 Ile Thr Glu Lys Cys Lys Asp Leu Gln Tyr Ser Leu Asn Ser Leu Ser
143              80                  85                  90
145 aac aaa acg aga cgg tac tct gag gat gac tac ctc cag acc atc aca   400
146 Asn Lys Thr Arg Arg Tyr Ser Glu Asp Asp Tyr Leu Gln Thr Ile Thr
147              95                 100                 105
149 aac ata cag aga tgc cca tgg aac cgg caa gca gaa gaa tat gac aat   448
150 Asn Ile Gln Arg Cys Pro Trp Asn Arg Gln Ala Glu Glu Tyr Asp Asn
151     110                 115                 120
153 ttt aga gca aaa ctg gct tcc tgt tgc gat gcc att caa gac ttc gtg   496
154 Phe Arg Ala Lys Leu Ala Ser Cys Cys Asp Ala Ile Gln Asp Phe Val
155 125                 130                 135                 140
157 gtt tcc cag aac aac act cca gtg ggg act aac atg agc tac gag gtg   544
158 Val Ser Gln Asn Asn Thr Pro Val Gly Thr Asn Met Ser Tyr Glu Val
159                 145                 150                 155
161 gaa agc aag aaa cac atc ccc att cga gag aac att ttc cac atg ttt   592
162 Glu Ser Lys Lys His Ile Pro Ile Arg Glu Asn Ile Phe His Met Phe
163             160                 165                 170
165 cca gtg tcg cag cct ttt gtg gac tat ccc tat aac cag tgt gca gtg   640
166 Pro Val Ser Gln Pro Phe Val Asp Tyr Pro Tyr Asn Gln Cys Ala Val
167             175                 180                 185
169 gtt ggt aat ggg gga att ctc aac aag tct ctc tgc gga gca gaa att   688
170 Val Gly Asn Gly Gly Ile Leu Asn Lys Ser Leu Cys Gly Ala Glu Ile
171     190                 195                 200
173 gat aaa tct gac ttc gtc ttc agg tgt aac ctc ccc cca atc aca ggg   736
174 Asp Lys Ser Asp Phe Val Phe Arg Cys Asn Leu Pro Pro Ile Thr Gly
175 205                 210                 215                 220
177 agc gct agt aaa gat gtt gga agc aaa aca aat ctt gtg act gtc aat   784
178 Ser Ala Ser Lys Asp Val Gly Ser Lys Thr Asn Leu Val Thr Val Asn
179                 225                 230                 235
181 ccc agc att ata acc ctg aag tac cag aat ttg aag gag aag aaa gca   832
182 Pro Ser Ile Ile Thr Leu Lys Tyr Gln Asn Leu Lys Glu Lys Lys Ala
183             240                 245                 250
185 cag ttt ttg gag gac atc tcc acc tat gga gat gca ttc ctc ctc ctg   880
186 Gln Phe Leu Glu Asp Ile Ser Thr Tyr Gly Asp Ala Phe Leu Leu Leu
187             255                 260                 265
189 cca gca ttt tcc tat cgg gcc aac aca ggc atc tct ttt aaa gtc tac   928
190 Pro Ala Phe Ser Tyr Arg Ala Asn Thr Gly Ile Ser Phe Lys Val Tyr
191     270                 275                 280
193 caa aca ctc aaa gag tca aaa atg agg caa aag gtt ctc ttc ttc cat   976
194 Gln Thr Leu Lys Glu Ser Lys Met Arg Gln Lys Val Leu Phe Phe His
195 285                 290                 295                 300
197 ccc agg tac ctg aga cac ctc gct ctt ttc tgg aga act aaa ggg gtg   1024
198 Pro Arg Tyr Leu Arg His Leu Ala Leu Phe Trp Arg Thr Lys Gly Val
199             305                 310                 315
201 act gca tac cgc ttg tcc aca ggc ttg atg att gca agt gtc gct gtg   1072
202 Thr Ala Tyr Arg Leu Ser Thr Gly Leu Met Ile Ala Ser Val Ala Val
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203              320             325             330
205 gaa ctg tgt gaa aac gtg aag ctc tac gga ttc tgg cct ttc tct aag  1120
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209 act atc gaa gac acc cca ctc agt cac cac tac tat gat aac atg tta  1168
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213 cct aag cat ggt ttc cac cag atg cct aaa gaa tac agc caa atg ctc  1216
214 Pro Lys His Gly Phe His Gln Met Pro Lys Glu Tyr Ser Gln Met Leu
215 365             370             375             380
217 cag ctc cat atg aga gga atc ctc aaa ctg caa ttc agc aaa tgt gaa  1264
218 Gln Leu His Met Arg Gly Ile Leu Lys Leu Gln Phe Ser Lys Cys Glu
219              385             390             395
221 acg gct taacgtttct tagaaggaga ataatttcag gaggtggagt ggatgtgtca  1320
222 Thr Ala
224 cagcatctcc aaaaagccaa tagaagaagg cacagagaaa gcatgaatta caaaggcgct  1380
226 ctcccacttg tctagaccaa agccacccgc ccccactcac tttgcagcct ccacgagtca  1440
228 ctcattctca ccttcaacgt tctttctctg agaatagaga ccaaaacatc agacttggat  1500
230 aagtaaaatg agataatttt tcaaatcatc atagaatttg atttgagcca gggtctctca  1560
232 gaatgcttcc ttgttcctat ccatgatagc cattcccacc tttatcagag tggtaatgaa  1620
234 actgtgcaat tgtgccaaag accctttctg aagagaatgt ctgaatcatg cgccgagttt  1680
236 ttacacacag ctcttccttt ataaataaat ccttcccatt ctccctccta gtagagtaca  1740
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280 attttgcaaa gggtaaaagg cttttttgtt aaataaaata aaatttatta ttttcttctg  3060
282 atgaatagag gctctttttat gctgctgcta atgaacctaa ttagctttaa attatctcct  3120
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288 <211> LENGTH: 398
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297             20                  25                  30
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300         35                  40                  45
302 Ala Ala Leu Arg Thr Leu Arg Ser Pro Ala Thr Ala Val Pro Arg Ala
303     50                  55                  60
305 Thr Asn Ser Thr Tyr Leu Asn Glu Lys Ser Leu Gln Leu Thr Glu Lys
306 65                  70                  75                  80
308 Cys Lys Asn Leu Gln Tyr Gly Ile Glu Ser Phe Ser Asn Lys Thr Lys
309                 85                  90                  95
311 Gly Tyr Ser Glu Asn Asp Tyr Leu Gln Ile Ile Thr Asp Ile Gln Ser
312             100                 105                 110
314 Cys Pro Trp Lys Arg Gln Ala Glu Glu Tyr Ala Asn Phe Arg Ala Lys
315             115                 120                 125
317 Leu Ala Ser Cys Cys Asp Ala Val Gln Asn Phe Val Val Ser Gln Asn
318     130                 135                 140
320 Asn Thr Pro Val Gly Thr Asn Met Ser Tyr Glu Val Glu Ser Lys Lys
321 145                 150                 155                 160
323 Glu Ile Pro Ile Lys Lys Asn Ile Phe His Met Phe Pro Val Ser Gln
324                 165                 170                 175
326 Pro Phe Val Asp Tyr Pro Tyr Asn Gln Cys Ala Val Val Gly Asn Gly
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329 Gly Ile Leu Asn Lys Ser Leu Cys Gly Thr Glu Ile Asp Lys Ser Asp
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333     210                 215                 220
335 Asp Val Gly Ser Lys Thr Asn Leu Val Thr Ile Asn Pro Ser Ile Ile
336 225                 230                 235                 240
338 Thr Leu Lys Tyr Gly Asn Leu Lys Glu Lys Lys Ala Leu Phe Leu Glu
339             245                 250                 255
341 Asp Ile Ala Thr Tyr Gly Asp Ala Phe Phe Phe Leu Pro Ala Phe Ser
342             260                 265                 270
344 Phe Arg Ala Asn Thr Gly Thr Ser Phe Lys Val Tyr Tyr Thr Leu Glu
345         275                 280                 285
347 Glu Ser Lys Ala Arg Gln Lys Val Leu Phe Phe His Pro Lys Tyr Leu
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350 Lys Asp Leu Ala Leu Phe Trp Arg Thr Lys Gly Val Thr Ala Tyr Arg
351 305                 310                 315                 320
353 Leu Ser Thr Gly Leu Met Ile Thr Ser Val Ala Val Glu Leu Cys Lys
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VERIFICATION SUMMARY   DATE: 12/12/2006
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